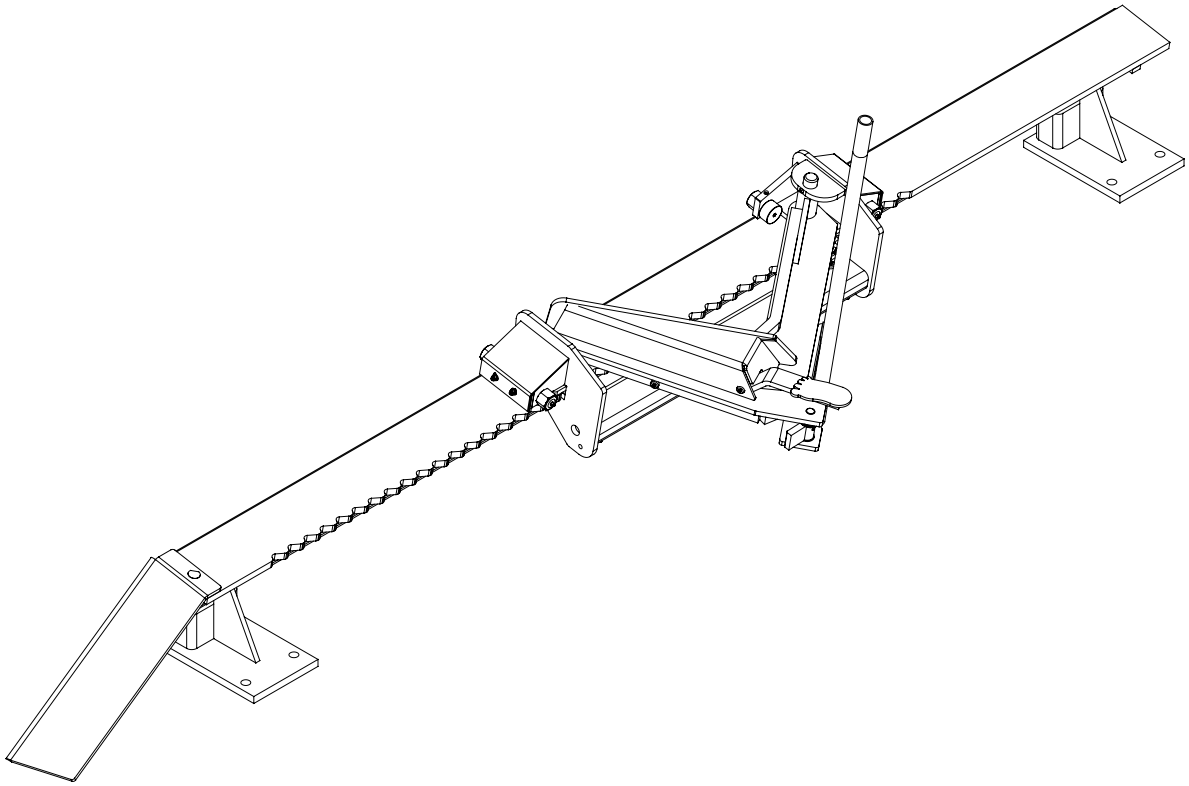
Manual Wheel Restraint
Surface Mounted



This manual applies to Manual Wheel Restraints manufactured beginning July 2013 with the serial number 61083244 and higher.

⚠WARNING

Do not install, operate or service this product unless you have read and understand the Safety Practices, Warnings, and Installation and Operating Instructions contained in this manual. Failure to do so could result in death or serious injury.

User's Manual
Installation, Operations, Maintenance and Parts

Part No. 6014097D

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INTRODUCTION

Welcome, and thank you for buying this wheel restraint from 4Front Engineered Solutions, Inc.

This User's Manual contains information that you need to safely install, operate and maintain the wheel restraint. It also contains a complete parts list and information about ordering replacement parts. Please keep and read this User's Manual before using your new wheel restraint.

SAFETY SIGNAL WORDS

You may find safety signal words such as DANGER, WARNING, CAUTION or NOTICE throughout this Owner's Manual. Their use is explained below:

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

⚠DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION

Indicates a potentially hazardous situation which, if not avoided may result in minor or moderate injury.

NOTICE

Notice is used to address practices not related to personal injury.

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SAFETY PRACTICES

⚠WARNING

Read these safety practices before installing, operating or servicing the wheel restraint. Failure to follow these safety practices could result in death or serious injury.

READ AND FOLLOW THE OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING THE WHEEL RESTRAINT. If you do not understand the instructions, ask your supervisor to teach you how to use the wheel restraint.

Improper installation of wheel restraint could result in death or serious injury to dock workers or other users of the wheel restraint.

Vehicles leaving or moving when loading and unloading are in process could result in death or serious injury.

Be certain bystanders in the driveway stand clear when the wheel restraint is operating.

Be certain to follow the installation instructions in this manual.

OPERATION

Use by untrained people can cause property damage, bodily injury and/or death. Your supervisor should teach you the safe and proper way to use the wheel restraint. Read and follow the complete OPERATING INSTRUCTIONS starting on page 12 before use. Do not use the wheel restraint if it is not working right. Tell your supervisor it needs repair.

Do not operate the wheel restraint with equipment, material, or people directly in front of the restraint.

Do not use the wheel restraint if it looks broken or does not seem to work right. Tell your supervisor at once.

Before chocking vehicle wheel or engaging the wheel restraint, dump air from air ride suspensions and set parking brake.

Prior to using the wheel restraint:

- Ensure the vehicle is parked firmly against the dock bumpers.

After engaging the wheel restraint:

- Load or unload the vehicle only when the inside GREEN light is displayed.

- If the wheel restraint cannot make engagement, use wheel chocks to secure the vehicle, then turn selector switch to **RESTRAINT OVERRIDE/LIGHTS ONLY**.

INSTALLATION, MAINTENANCE AND SERVICE

If the wheel restraint does not operate properly using the procedures in this manual, BE CERTAIN TO MANUALLY CHOCK THE VEHICLE WHEELS BEFORE LOADING OR UNLOADING. Call your local distributor for service.

Place barricades around pit on dock floor and drive while installing, maintaining or repairing the wheel restraint.

Do not stand in the driveway between the dock and a backing vehicle.

All electrical troubleshooting and repair must be done by a qualified technician and meet all applicable codes.

Before doing any electrical work, make certain the power is disconnected and properly tagged or locked off.

Before doing any welding, make certain the power is disconnected and properly tagged or locked off.

If it is necessary to make troubleshooting checks inside the control box with power on, USE EXTREME CAUTION. Do not place fingers or uninsulated tools inside the control box. Touching wires or other parts inside the control box could result in electrical shock, serious injury or death.

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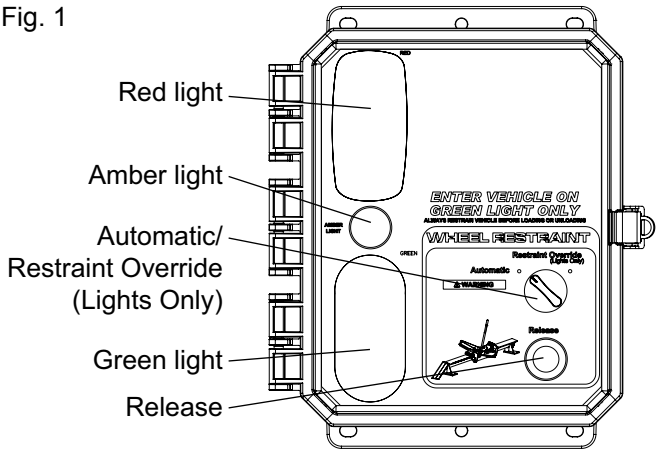
COMPONENTS AND SPECIFICATIONS

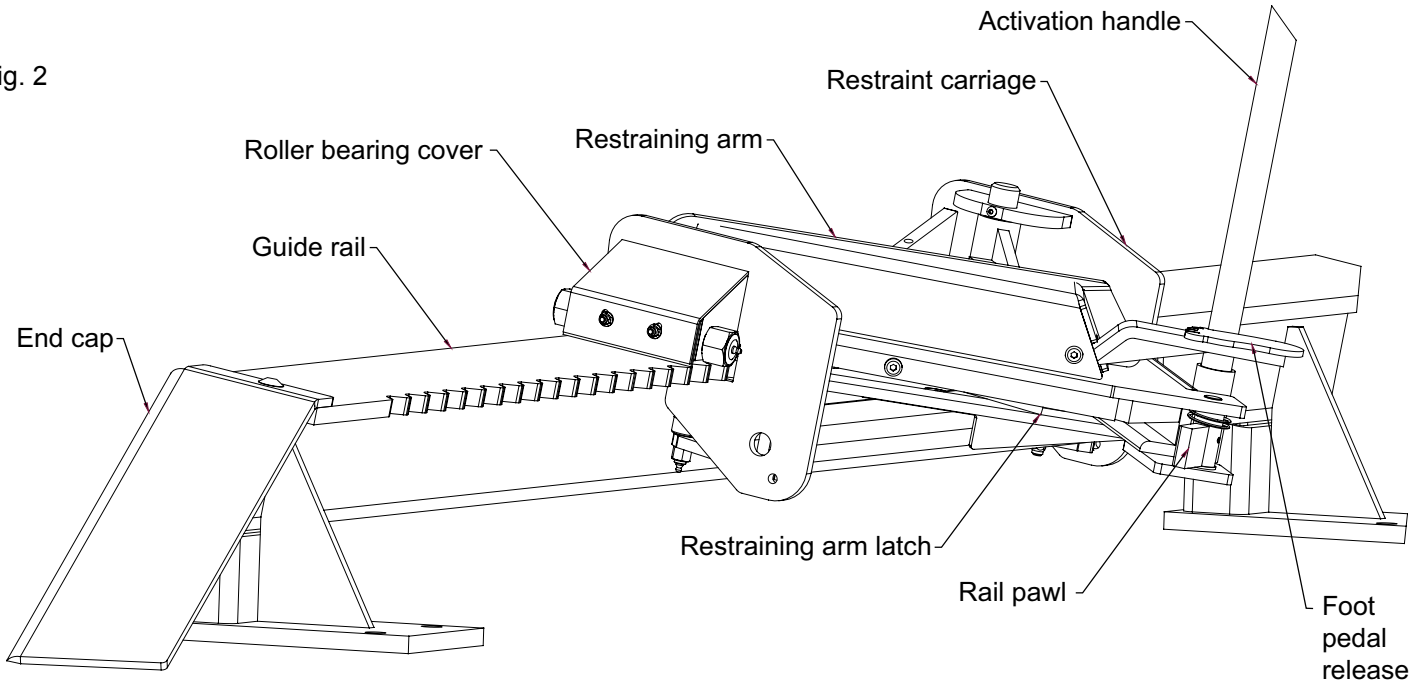
The main components of the wheel restraint are shown below.

Fig. 1



Control panel

Fig. 2



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INSTALLATION INSTRUCTIONS

⚠WARNING

Before installation read and follow the Safety Practices on page 3. Failure to follow these safety practices could result in death or serious injury.

READ AND FOLLOW THE OPERATION INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING THE WHEEL RESTRAINT. If you do not understand the instructions, ask your supervisor to teach you how to use the wheel restraint.

Improper installation of the wheel restraint could result in death or serious injury to dock workers or other users of the wheel restraint.

Place barricades around pit on dock floor and drive while installing, maintaining or repairing the wheel restraint.

Be certain bystanders in the driveway stand clear when the wheel restraint is operated.

Be certain to follow the installation instructions in this manual.

INSTALLATION INSTRUCTIONS

1. Layout the installation position. Refer to the wheel restraint installation drawings included in this publication for clarification of the following instructions. See Fig. 3.
   a. Mark the center line of the dock on the driveway. This is point “A”.

   b. While facing the dock, measure over 52" to the right of the center line and mark the driveway at the dock wall. This is point “B”.

   c. Measure 146" out from the dock wall (from point “B”) and draw a line on the driveway parallel to the wall.

   d. Hold one end of the tape measure on the center line of the dock wall (point “A”) and measure out 155" to the 146" line. Mark where the 155" distance crosses the 146" line. This is point “C”.

   e. Mark a line from point “B” to point “C” and extend the line out 16' from the dock face. This line will be square to the dock wall.

2. Position the wheel restraint assembly on the right side of the driveway with the inside edge of the guide rail tube directly above the line “B-C” with back anchor 35" from dock wall. Secure the rail assembly to the driveway with four anchor bolts 3/4" diameter by 5-1/2" long (Furnished by 4Front Engineered Solutions, Inc.). Torque to 110 ft. lbs.

3. Mount the control panel on drivers side of the dock so that the communication lights are visible to the fork truck driver. Mount the outside communication lights/alarm and sign so that they are visible to the vehicle driver. Refer to the installation drawing for recommended dimensions. Make sure the Red light is on top and the Green light on the bottom when the light assembly is mounted. See Fig. 5.

4. Refer to the operation and maintenance instructions. If the wheel restraint does not operate properly, refer to the troubleshooting guide on page 19.

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Fig. 3

DRIVER SIDE MOUNTING

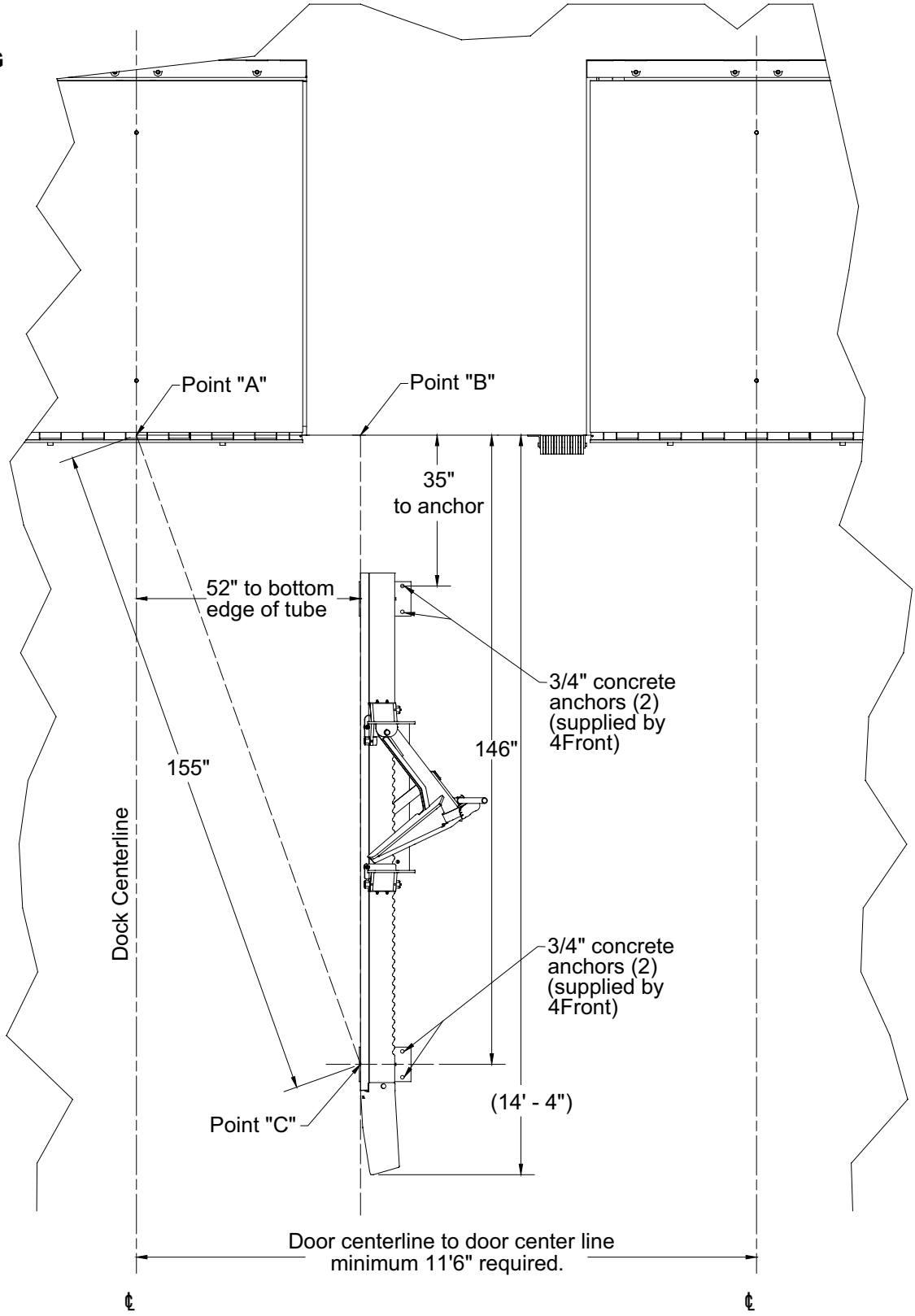

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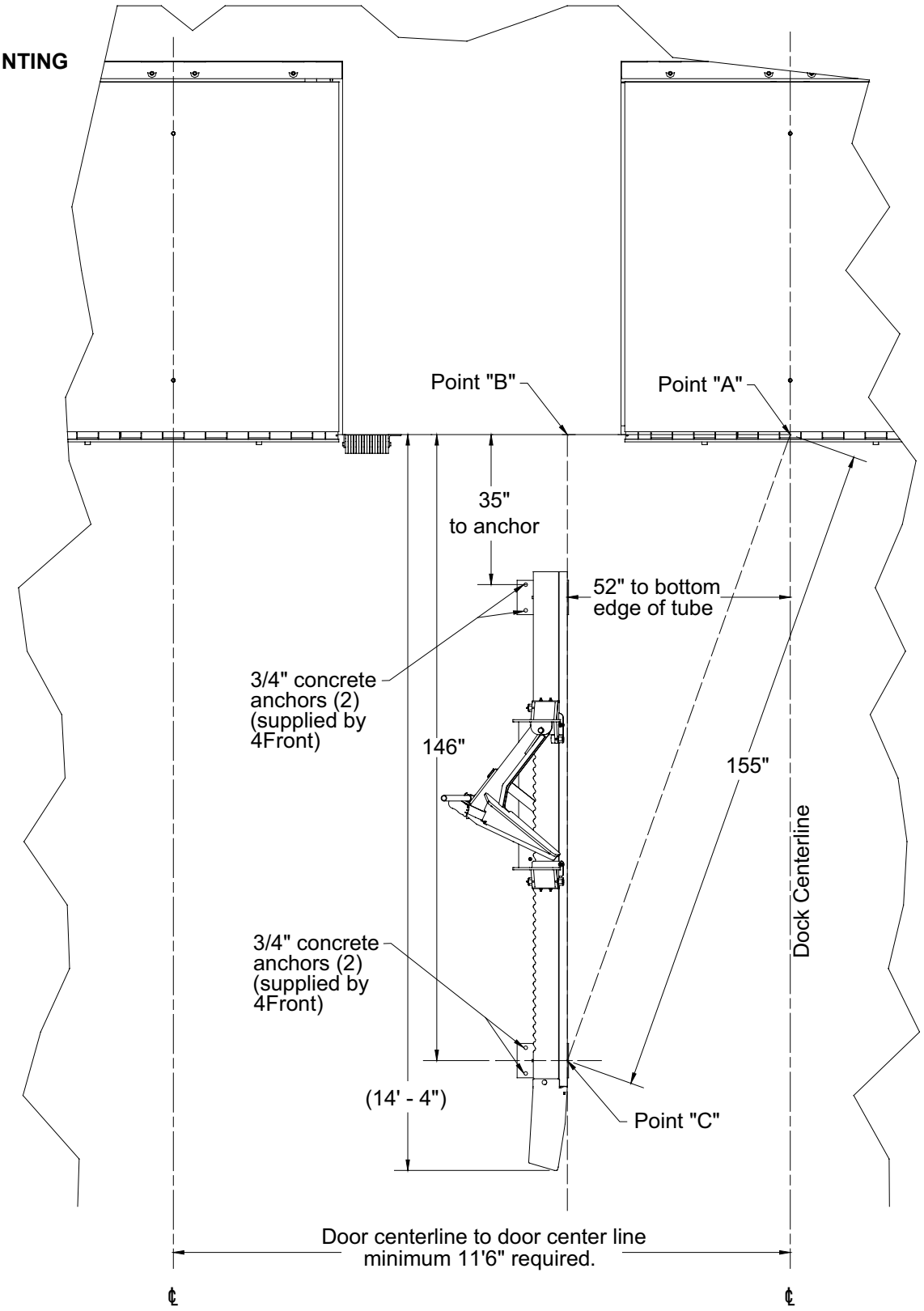
Fig. 4

PASSENGER SIDE MOUNTING



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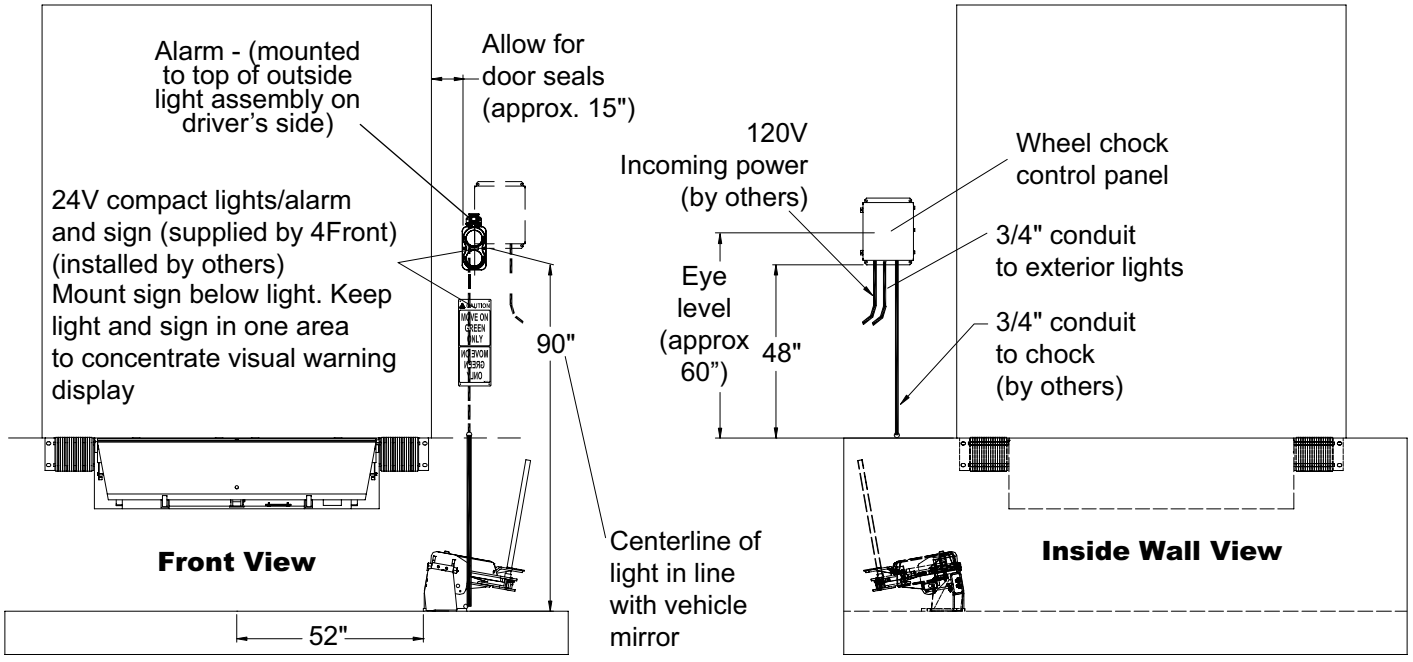
INSTALLATION INSTRUCTIONS, continued

Fig. 5

DRIVER SIDE MOUNTING



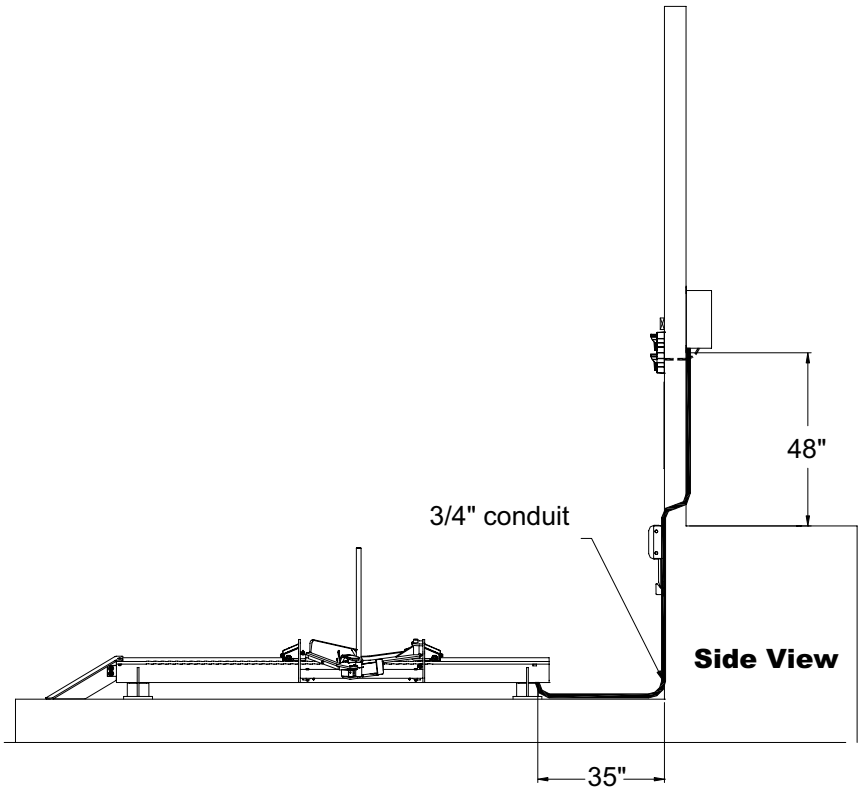


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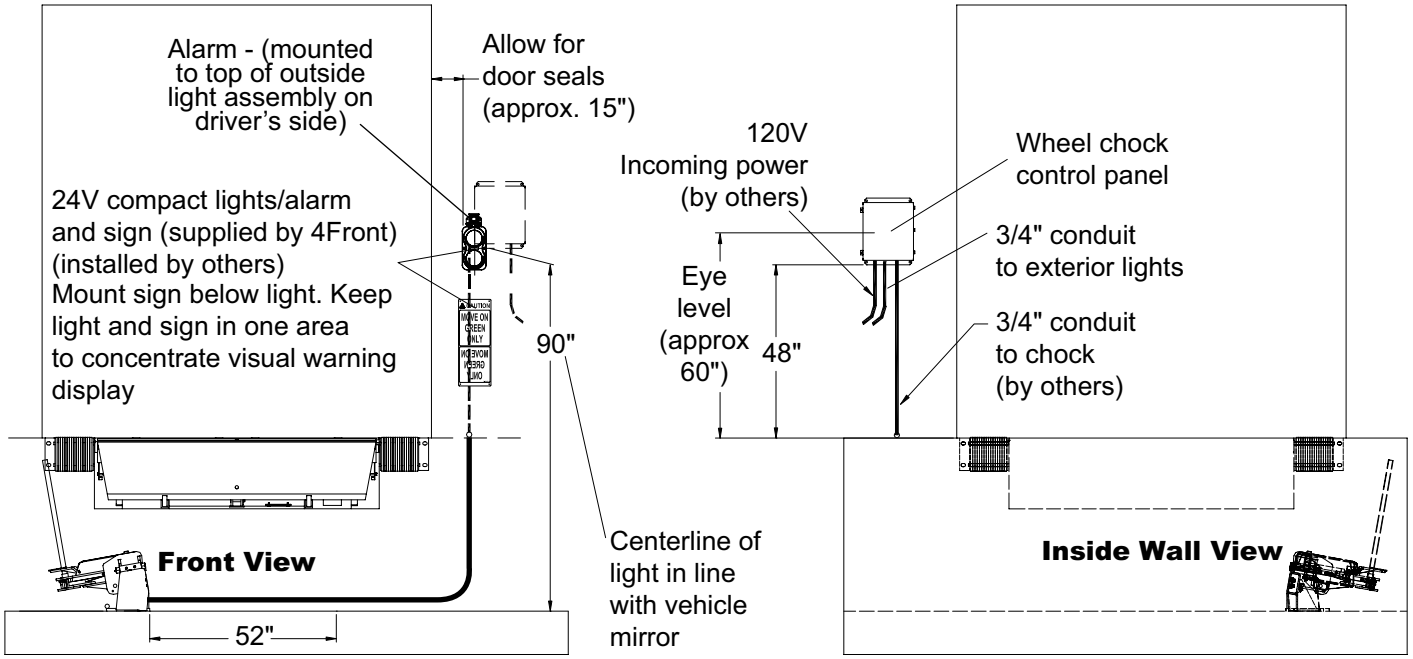
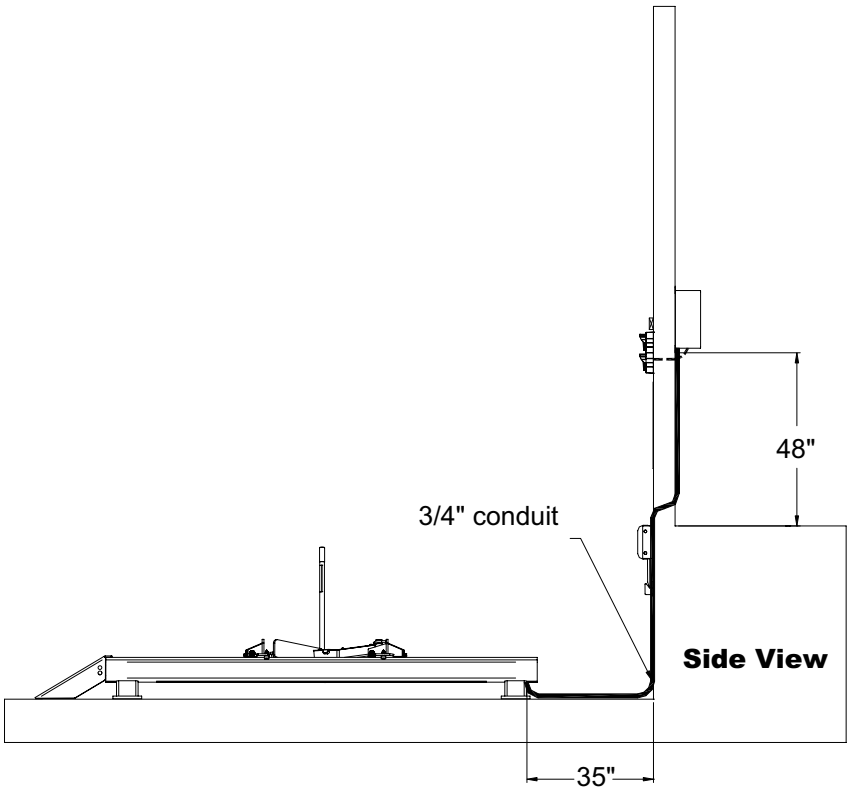
Fig. 6

PASSENGER SIDE MOUNTING





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INSTALLATION INSTRUCTIONS, continued

WEDGE ANCHOR INSTALLATION

⚠WARNING

Do not install the vehicle restraint anchor bolts into aged or unsound concrete.

Use standard anchors on smooth 4,000 PSI concrete walls only. For aggregate, cinder block or tilt walls - consult factory.

⚠CAUTION

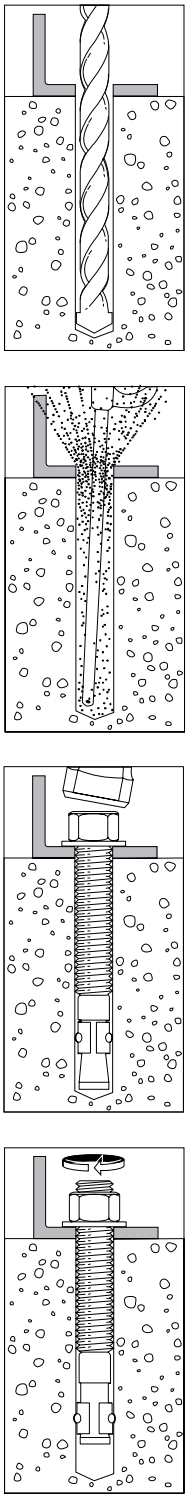
Oversized holes in the base material will make it difficult to set the anchor and will reduce the anchor's load capacity.

NOTICE

Do not use an impact wrench to set or tighten the wedge anchors.

Drill a hole in the concrete using a carbide drill bit the same diameter as the nominal diameter of the anchor to be installed. Drill the hole to the specified embedment depth and blow it clean using compressed air. Alternatively, drill the hole deep enough to accommodate embedment depth and dust from drilling. Assemble the anchor with nut and washer so the top of the nut is flush with the top of the anchor. Place the anchor in the fixture and drive into the hole until washer and nut are tight against fixture. Torque to 110 ft. lbs. See Fig. 7.

Fig. 7



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ELECTRICAL INSTALLATION

⚠WARNING

All wiring must be done by a qualified technician and must meet all applicable codes.

NOTICE

A field installed relay kit must be installed in the panel to interlock a dock leveler.

1. Make all field connections as shown on electrical installation drawing, see page 20.

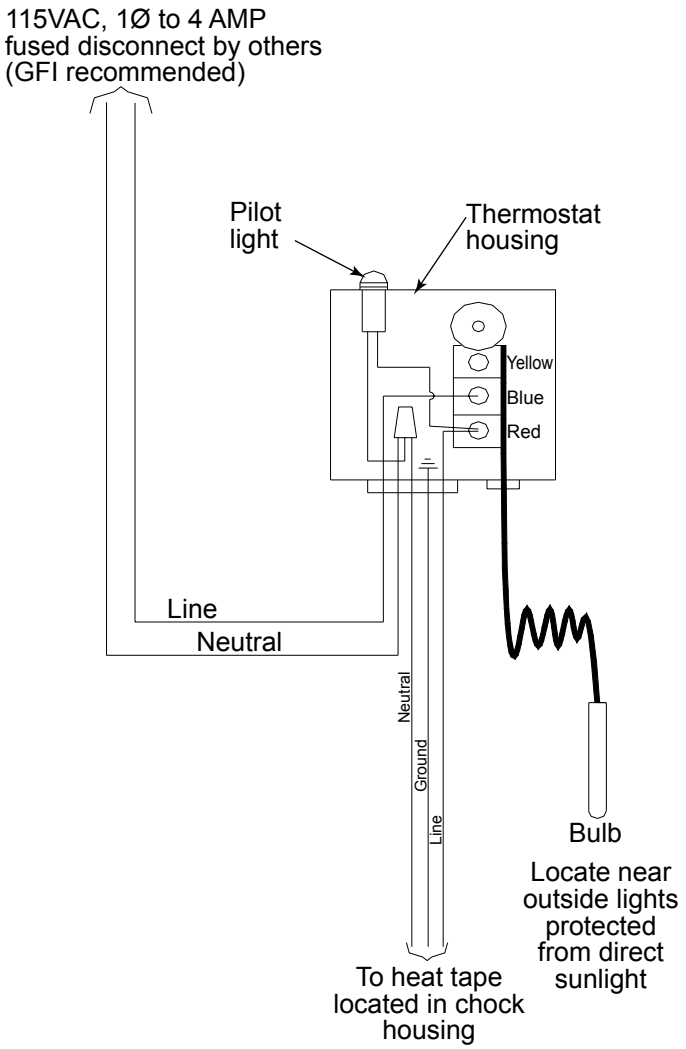
HEAT TRACER INSTALLATION (OPTIONAL)

1. Mount the thermostat housing in close proximity to the outside lights, except on the inside of the wall. Protrude the bulb through the wall under the outside lights protected from direct sunlight.

2. Wire the heat tracer and pilot light in the thermostat housing. Set the thermostat at 40-50º F, and test the heat tape and chock for proper operation. Make sure the pilot light turns on when the thermostat turns the heat tape on. The pilot light becomes a visible indication of proper heat tape operation.

3. Power for the heat tape is separate from the wheel restraint control box. It requires a separate 115V power source with 4 amp fuse, with GFI protection recommended, provided by others. See Fig 8.

Fig. 8



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OPERATING INSTRUCTIONS

Use these instructions for normal operations.

⚠WARNING

Before operating the wheel restraint, read and follow the Safety Practices, Warnings, and Operation instructions contained in this manual. Use by untrained people could result in death or serious injury.

Do not use the wheel restraint if it looks broken or does not seem to work right. Tell your supervisor at once.

Do not load or unload any vehicle unless you make certain the wheel restraint has securely engaged the tire and set the brakes. If the wheel restraint will not chock the vehicle's tire for any reason, BE CERTAIN TO MANUALLY CHOCK THE VEHICLE WHEELS BEFORE LOADING OR UNLOADING.

Enter the vehicle only when the GREEN signal light on the control panel is on. You must check the GREEN signal light each time that the vehicle is entered. If the GREEN light goes off at any time during loading operations, immediately cease loading operations and check the wheel restraint to ensure that it is securely hitched.

If the power to the wheel restraint is interrupted, immediately cease operations and check the unit. consult the troubleshooting instructions to reset the lights when power resumes.

Vehicles leaving or moving when loading and unloading are in process could result in death or serious injury.

Do not press the release button or release the restraining arm with dock leveler lip in trailer. Always return the dock leveler to its stored position at dock level before pressing the release push button or allowing the vehicle to leave.

Failure to follow these safety practices may result in death or serious injury.

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ENGAGING VEHICLE

1. With the vehicle in contact with the dock bumpers and the wheel restraint in the stored position the outside light should be GREEN and inside light should RED with the selector switch in the AUTOMATIC position. See Fig. 9.

2. Move the restraining carriage along the guide rail using the provided actuation handle on the wheel restraint. Position the restraining arm in front of the rear wheel of the vehicle. See Fig 10.

3. Extend the restraining arm out by pushing the handle toward the trailer until it locks into position on the rail. As the restraining arm begins to extend toward the trailer, the outside light will change from GREEN to RED. See Fig. 11.

Fig. 9

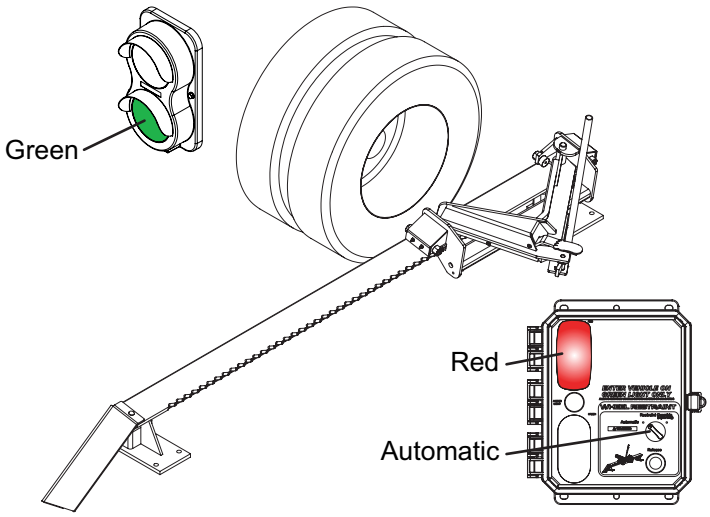


Fig. 10

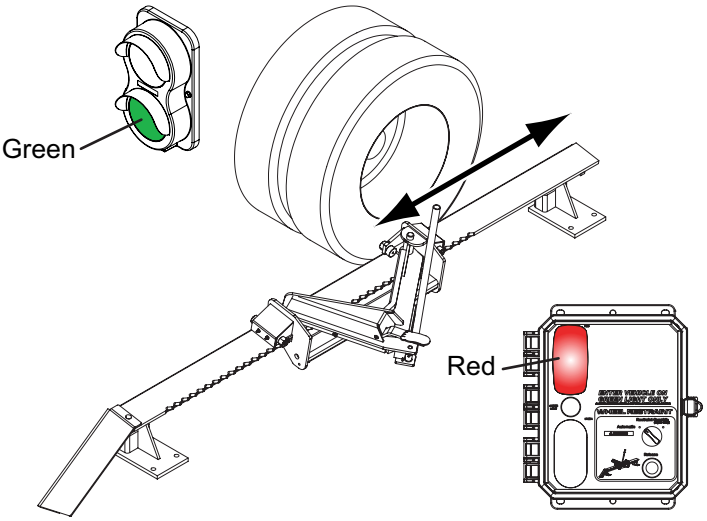
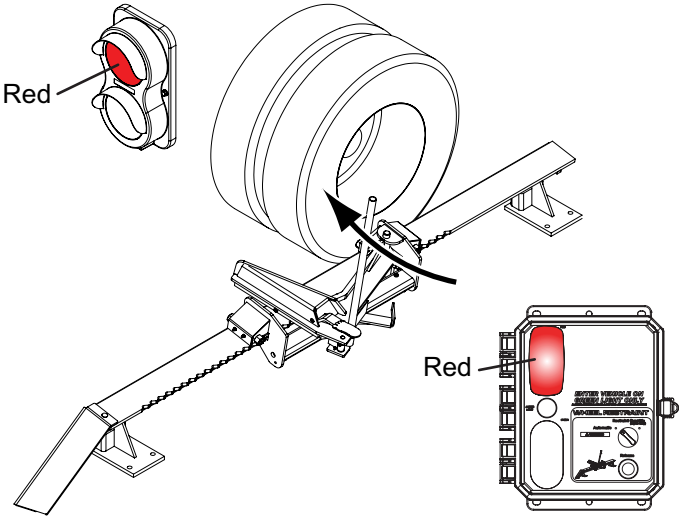


Fig. 11



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OPERATING INSTRUCTIONS, continued

ENGAGING VEHICLE (CONTINUED)

4. With the restraining arm locked in the extended position move the restraining arm into contact with the rear wheel of the vehicle. The operator shall confirm that the restraint has fully engaged the rear wheel. When the restraint has fully engaged the rear wheel, the inside lights will change from Red to Green. The vehicle is now safe to load and unload. See Fig. 12.

⚠WARNING

In the event the restraining arm is released prior to the release pushbutton being pressed, an audible alarm will sound and the inside lights will change from GREEN to RED and AMBER. Re-engage restraining arm to silence alarm and change inside light back to GREEN. Do not attempt to load or unload the vehicle until alarm is silenced and inside light is GREEN.

RELEASING VEHICLE

⚠WARNING

Do not press the release button or release the restraining arm with dock leveler lip in trailer.

1. Store dock leveler.

2. Press restraint release button. The inside light will change from GREEN to RED and FLASHING AMBER. The outside light will change from RED to RED and GREEN. See Fig. 13.

3. Release restraining arm from vehicle wheel by applying a downward force to the foot pedal and allow the restraining arm to retract toward the stored position. See Fig. 14.

Fig. 12

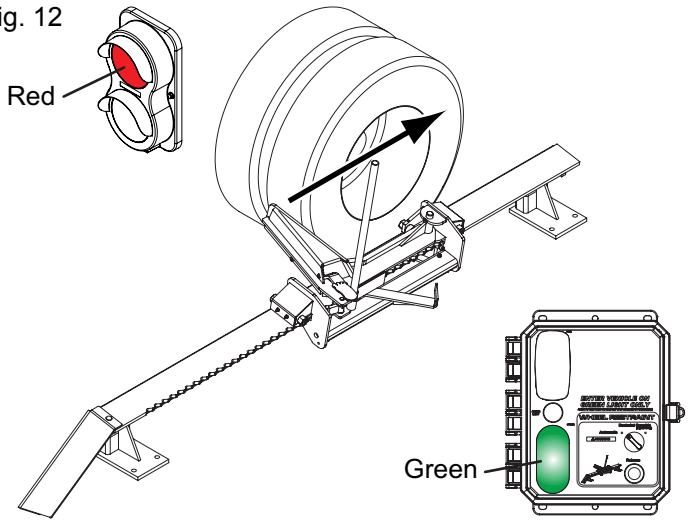


Fig. 13

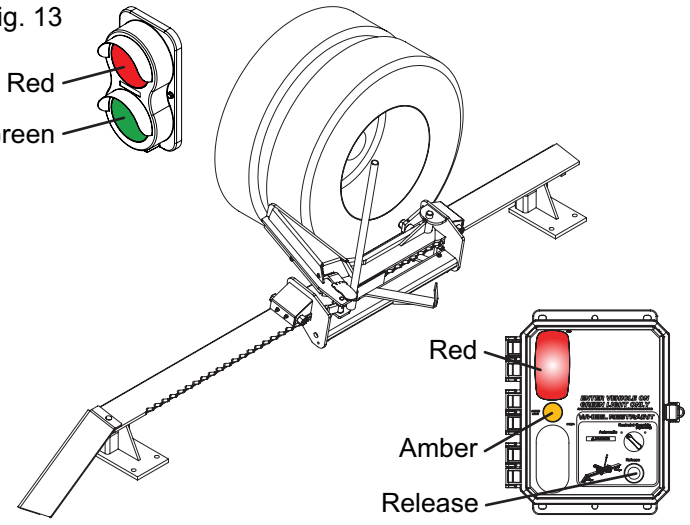
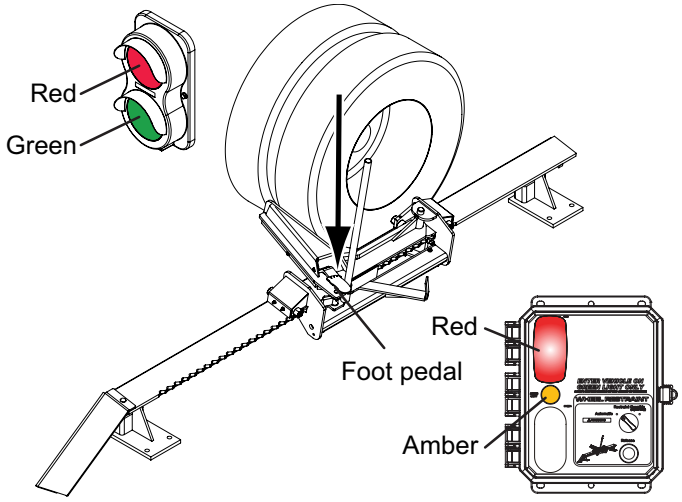


Fig. 14



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RELEASING VEHICLE (CONTINUED)

4. When the restraining arm reaches the stored position, the inside light will change from RED and AMBER FLASHING to just steady RED and the outside light will turn from RED and GREEN to just GREEN. The vehicle is now safe to leave. See Fig. 15.

⚠WARNING

In the event the restraining arm is released prior to the release pushbutton being pressed, an audible alarm will sound and the inside lights will change from GREEN to RED and AMBER. Re-engage restraining arm to silence alarm and change inside light back to GREEN. Do not attempt to load or unload the vehicle until alarm is silenced and inside light is GREEN.

FOR VEHICLES THAT CANNOT BE ENGAGED

⚠WARNING

Do not press the release button or release the restraining arm with dock leveler lip in trailer.

Do not initiate RESTRAINT OVERIDE (LIGHTS ONLY) unless vehicle wheels have been chocked. Only authorized trained personnel should intiate RESTRAINT OVERIDE (LIGHTS ONLY).

1. If the configuration of the vehicle wheels prevents proper engagement of the of the restraining arm, the wheels must be manually chocked. Manually chock the vehicle wheels and then rotate the RESTRAINT OVERIDE / LIGHTS ONLY selector switch to initiate the restraint override condition. The outside light will change from GREEN to RED. The inside light will change from RED to GREEN and AMBER. The vehicle is now safe to load and unload. See Fig. 16.

2. When the loading and unloading is complete return the dock leveler to the stored position. Remove the wheel chocks and rotate the selector switch to the AUTOMATIC position. The outside light will change from RED to GREEN and inside light will change from GREEN and AMBER to RED. The vehicle is now safe to leave. See Fig. 17.

Fig. 15

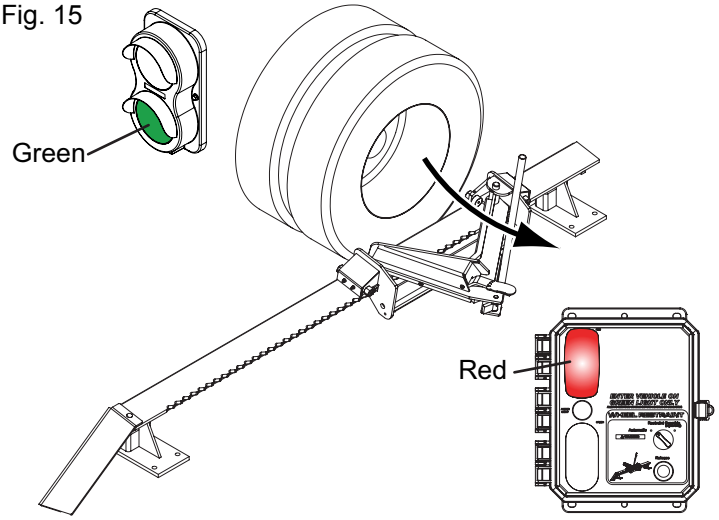


Fig. 16

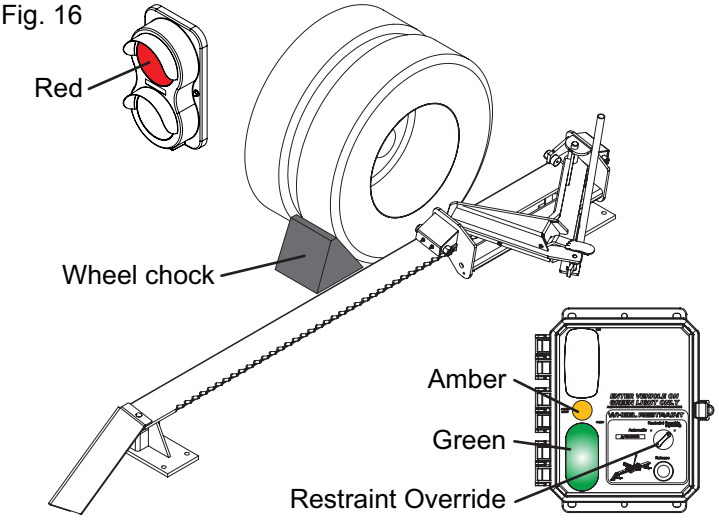
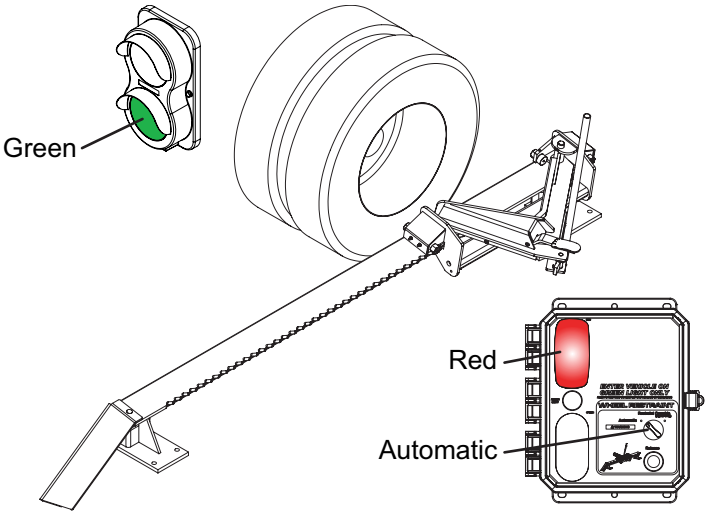


Fig. 17



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PLANNED MAINTENANCE

To ensure the continued proper operation of your wheel restraint, perform the following planned maintenance procedures.

⚠ WARNING

Do not service this product unless you have read and followed the Safety Practices, Warnings and Operation instructions contained in this manual. Failure to follow these safety practices could result in death or serious injury.

DAILY

1. Check inside/outside lights and alarms to ensure they are functioning properly.
2. Clear all debris (dirt, snow, etc.) from the rail.
3. Check for worn, torn, missing bumpers. Replace if necessary.

WEEKLY

1. Remove all debris from the restraining arm and under the wheel restraint housing.
2. Remove all debris from the restraining arm stored sensor.
3. Inspect the wheel restraint for damage that may weaken the anchoring strength. Re-tighten the concrete anchors if necessary.

QUARTERLY

1. Lubricate the restraining arm pivot with light oil, and ensure that it pivots freely. See Fig. 19 on page 17.
2. Inspect the chock for any signs of wear, distortion, or cracked welds.
3. Grease all pivot points. See Fig. 19 on page 17.
4. Check for worn, torn, missing bumpers. Replace if necessary.
5. Inspect all safety labels and tags to ensure they are on the dock leveller and are easily legible. If any are missing or require replacement, please call your local distributor. See Fig. 18.

Fig. 18

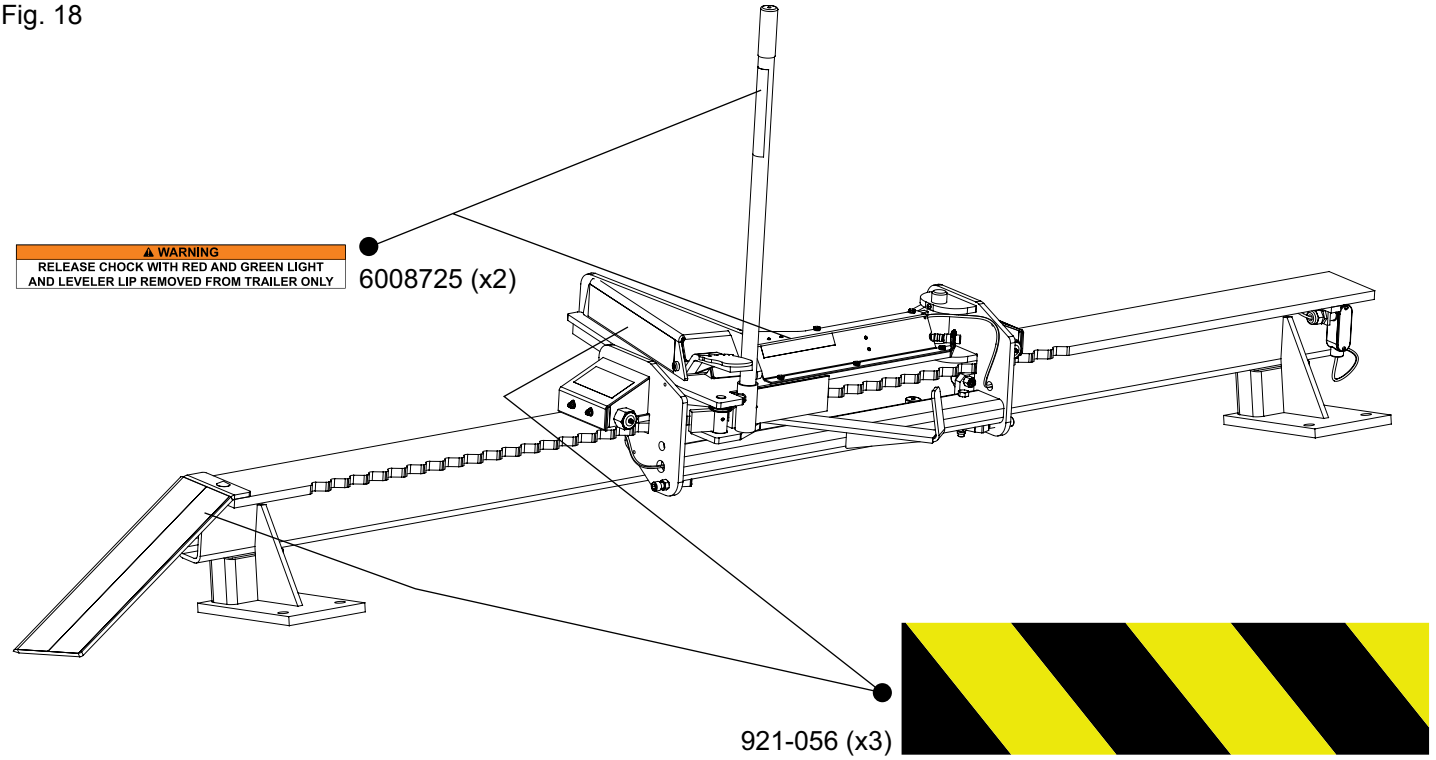

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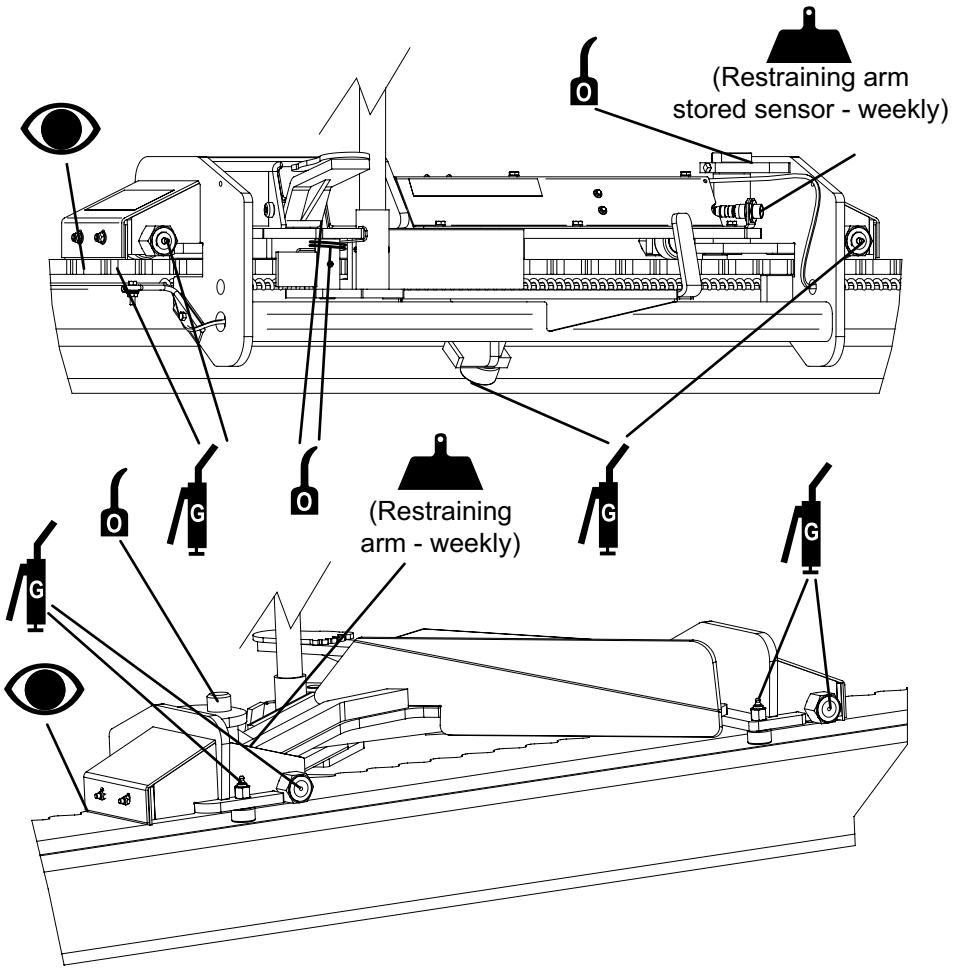
Fig. 19



Legend	
Symbol	**Description**
O	**Lubricate - Oil** Light Oil - SAE 30
G	**Lubricate - Grease** Molybdenum Disulfide NLGI #2
	Cleaning (Location - Frequency)
	Visually inspect (Replace damaged or worn)

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ADJUSTMENTS

⚠WARNING

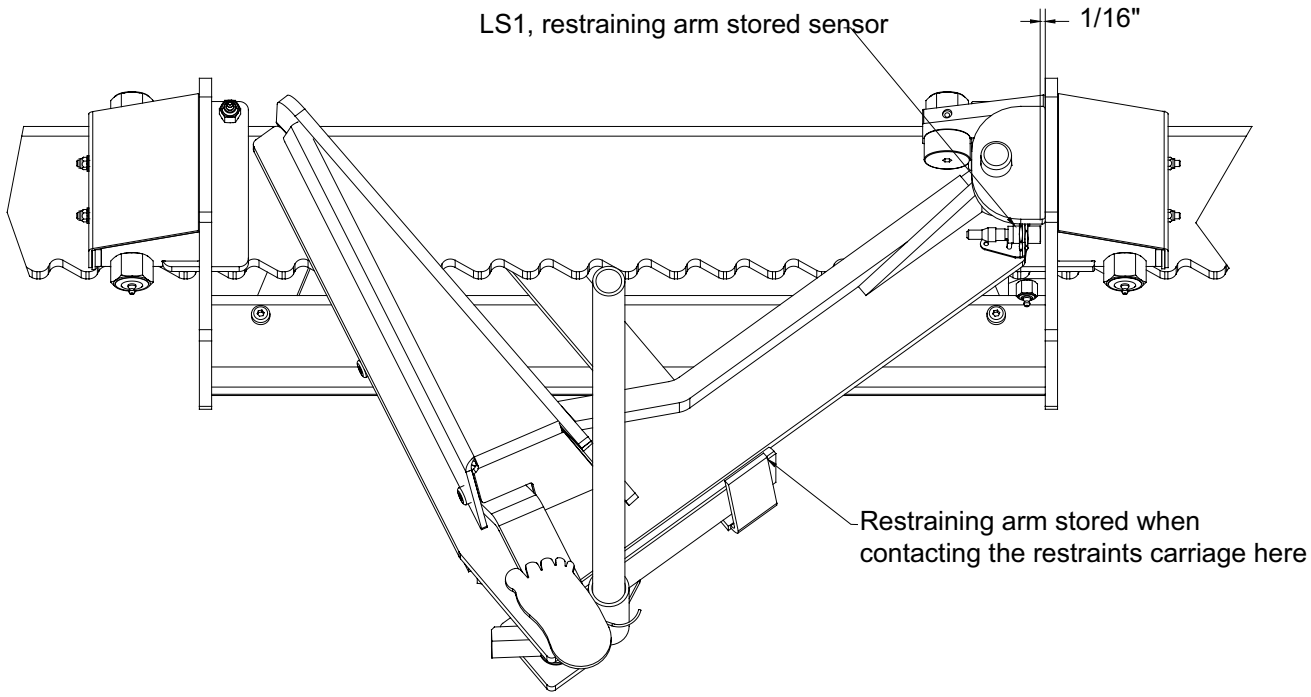
Do not service this product unless you have read and followed the Safety Practices, Warnings and Operation instructions contained in this manual. Failure to follow these safety practices could result in death or serious injury.

Use these instructions to adjust the wheel restraint.

PROXIMITY SENSORS — LS1

Proximity sensor LS1 indicates the restraining arm stored position. The correct position is when the restraining arm is resting against the stop on the carriage. When the restraining arm is stored, the LS1 sensor should be 1/16" from contacting the restraint carriage as shown in Fig. 20.

Fig. 20



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TROUBLESHOOTING

⚠WARNING

Before servicing the wheel restraint, read and follow the Safety Practices on page 2 and the Operation section in this manual. Failure to do so could result in death or serious injury.

Use the Troubleshooting Guide if the wheel restraint fails to perform properly. Find the condition that most closely matches your situation, and make the recommended adjustments.

PROBLEM	POSSIBLE CAUSE	SOLUTION
1. No Lights.	a) No power to panel.	a) Check power supply terminals L and N.
	b) Fuse failed.	b) Check fuses FU-1 and fuse on circuit board.
2. Restraining arm is stored, inside and outside lights are red.	a) LS1 switch out of adjustment.	a) Check LS1 switch adjustment. Check wiring. See page 18.
3. Restraining arm is rotated into engagement with vehicle wheel, inside and outside lights are red.	a) LS4 switch not sensing.	a) Check LS4 wiring. See item 3 pages 26-27
4. No sound from outside alarm.	a) Alarm polarity reversed.	a) Verify alarm wiring.

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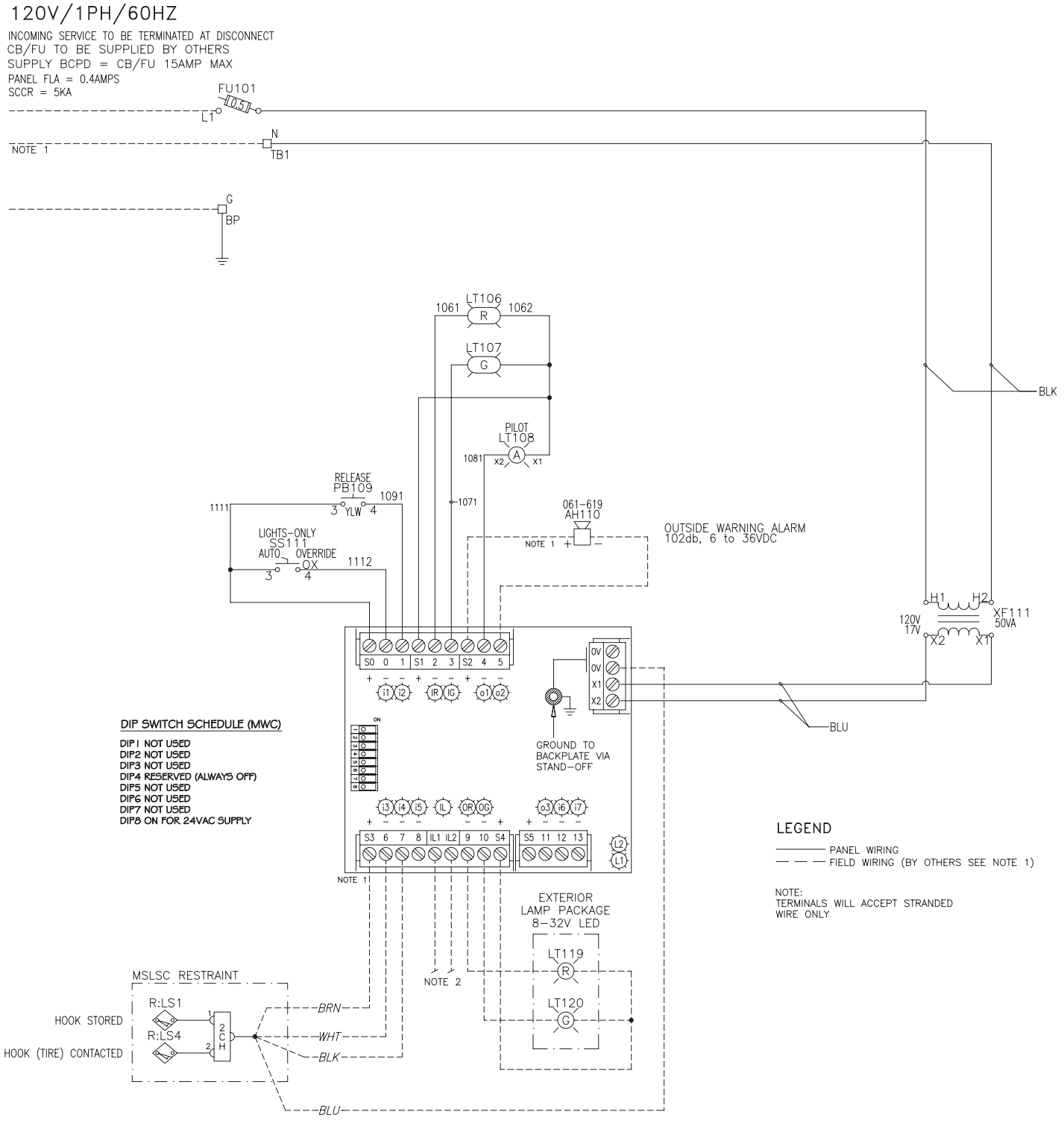
ELECTRICAL SCHEMATIC

Fig. 21



1. FIELD TERMINAL WIRING: 90 DEGREE WIRE, MIN 16AWG FOR SIGNAL WIRING, MIN 14AWG FOR INCOMING POWER, SEE CHART IN PANEL FOR TORQUE REQUIREMENTS
2. INTERLOCK 1: TERMINALS IL1-IL2, DRY CONTACT RATED 0.5A @ 24VDC MAX. EXTERNAL FUSE REQUIRED. CLOSES WHEN LS4 CLOSES OR SWITCHED TO OVERRIDE.

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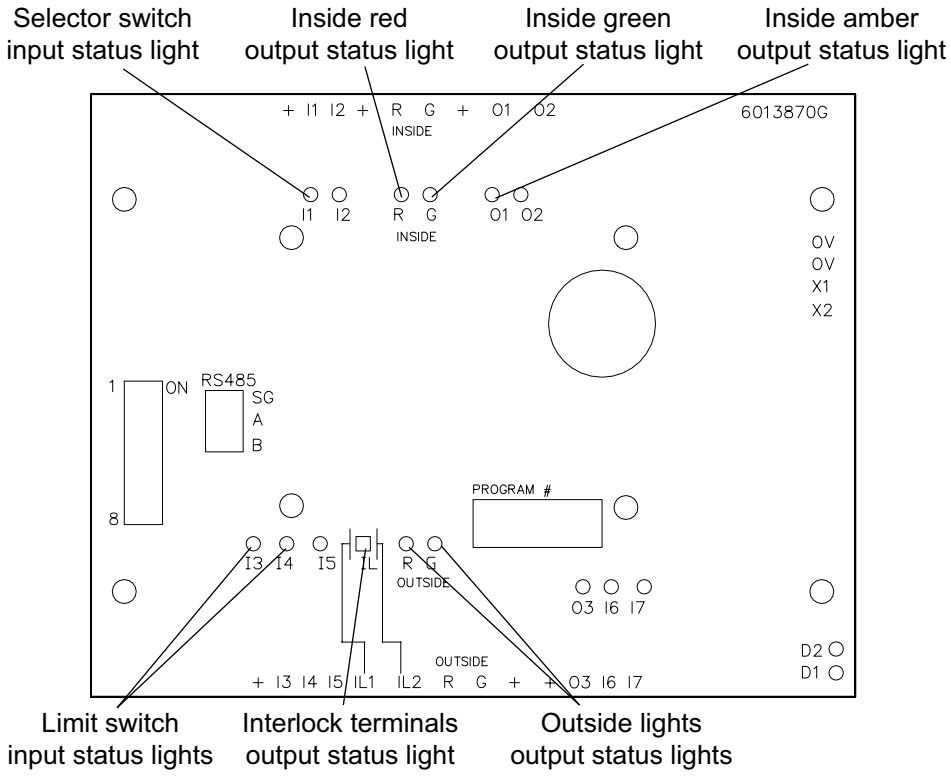
CONTROL PANEL CIRCUIT BOARD COVER

Fig. 22



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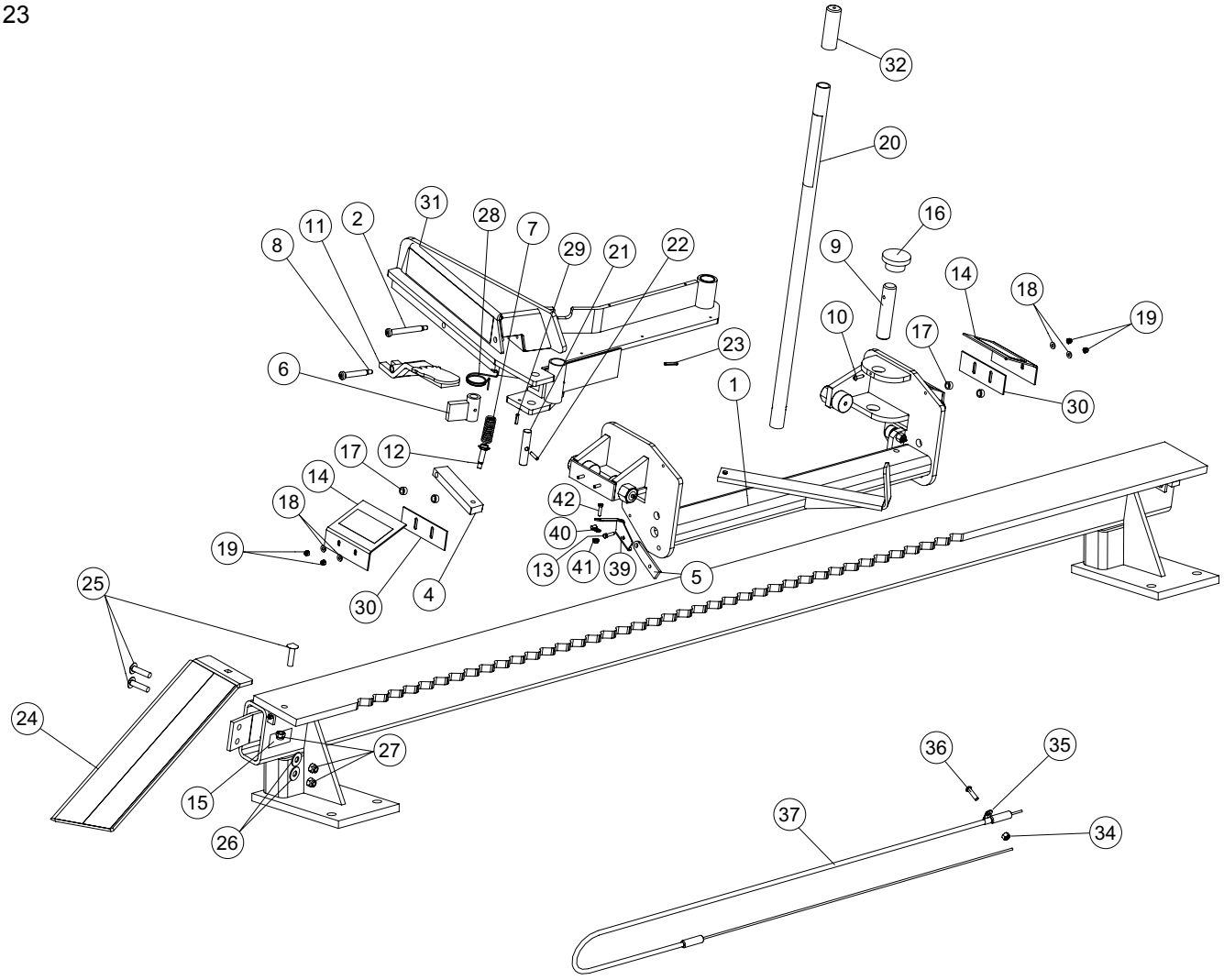
PARTS LIST — WHEEL RESTRAINT

⚠WARNING

To ensure proper function, durability and safety of the product, only replacement parts that do not interfere with the safe, normal operation of the product must be used. Incorporation of replacement parts or modifications that weaken the structural integrity of the product, or in any way alter the product from its normal working condition at the time of purchase from 4Front Engineered Solutions, Inc. may result in product malfunction, breakdown, premature wear, death or serious injury.

Fig. 23



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PARTS LIST — WHEEL RESTRAINT, continued

Item	Qty.	Part Description	Part Number
1	1	CARRIAGE ASSY. — DRIVER SIDE CARRIAGE ASSY. — PASSENGER SIDE	6009000 6010968
2	1	HEX SOCKET HEAD SHOULDER SCREW, 1/2 X 3-1/2	6009145
3	1	NYLON LOCK NUT, 3/8-16 UNC	214538
4	1	LEVER, CHOCK ARM RELEASE	6009005
5	1	PUSH BAR	6015583
6	1	WELDMENT, PAWL ASSY.	6009003
7	1	SPRING, FOOT PEDAL RELEASE	6009137
8	1	HEX SOCKET HEAD SHOULDER SCREW, 1/2 X 2-1/2	6006650
9	1	MAIN ARM PIN	6009894
10	1	CUP POINT SQUARE HEAD SET SCREW, 1/4-20 X 1/2L	6009896
11	1	WELDMENT, FOOT PEDAL RELEASE — DRIVER SIDE WELDMENT, FOOT PEDAL RELEASE — PASSENGER SIDE	6009004 6010972
12	1	ASSY, FOOT PEDAL BOLT	6012279
13	1	HHMB 1/4-20 X 1-1/4	000104
14	2	COVER, ROLLER BEARING	6009008
15	1	SERIAL TAG	6009761
16	1	CAM BUSHING, CHOCK ARM PIVOT	6009895
17	1	SPACER, SCRAPER	6010783
18	4	PLAIN WASHER 1/4 BOLT SIZE, 5/16 HOLE, PLATED	234081
19	4	NYLON LOCK NUT, 1/4-20 UNC	214502
20	1	ACTIVATION POST	6009010
21	1	PIN, RATCHET	6009011
22	1	SPRING PIN, 5/16 X 1-1/4	6010112
23	1	SPRING PIN, 1/4 X 1-3/4	6010126
24	1	NOSE CONE — DRIVER SIDE NOSE CONE — PASSENGER SIDE	6009012 6010973
25	3	CARRIAGE BOLT, 1/2-13 X 2, PLATED	213145
26	2	PLAIN WASHER 1/2 BOLT SIZE, 9/16 HOLE, PLATED	234121
27	3	NYLON LOCK NUT, 1/2-13 UNC, PLATED	214505
28	1	SPRING RATCHET PAWL — DRIVER SIDE SPRING RATCHET PAWL — PASSENGER SIDE	6009013 6013189

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PARTS LIST — WHEEL RESTRAINT, continued

Item	Qty.	Part Description	Part Number
29	1	SPRING PIN , 1/4 X 1 — DRIVER SIDE SPRING PIN, 3/16 X 1 1/4 — PASSENGER SIDE	231122 035373
30	2	SCRAPER	6009014
31	1	CHOCK ARM ASSY. — DRIVER SIDE CHOCK ARM ASSY. — PASSENGER SIDE	6009002 6010970
32	1	EOD GRIP	6007550
33	1	HEATER KIT ASSY (OPTIONAL)	6011919
34*	1	NUT, 1/4-20, NYLON	214502
35*	1	CABLE CLIP, Ø 5/16 WIRE	441125
36*	1	BOLT, 1/4-20X1	6008574
37*	1	HEAT TRACER	623202
38*	1	THERMOSTAT ASSY WITH ENCLOSURE AND PILOT LIGHT (NOT SHOWN)	061787
39	1	CABLE SUPPORT	6013634
40	1	CLIP, Ø 1/4 CLOSED	6011965
41	1	NUT, SERRATED FLANGE, 1/4-20	6011966
42	1	BOLT, 1/4-20 X 5/8	212003

**** Included in item 33.***

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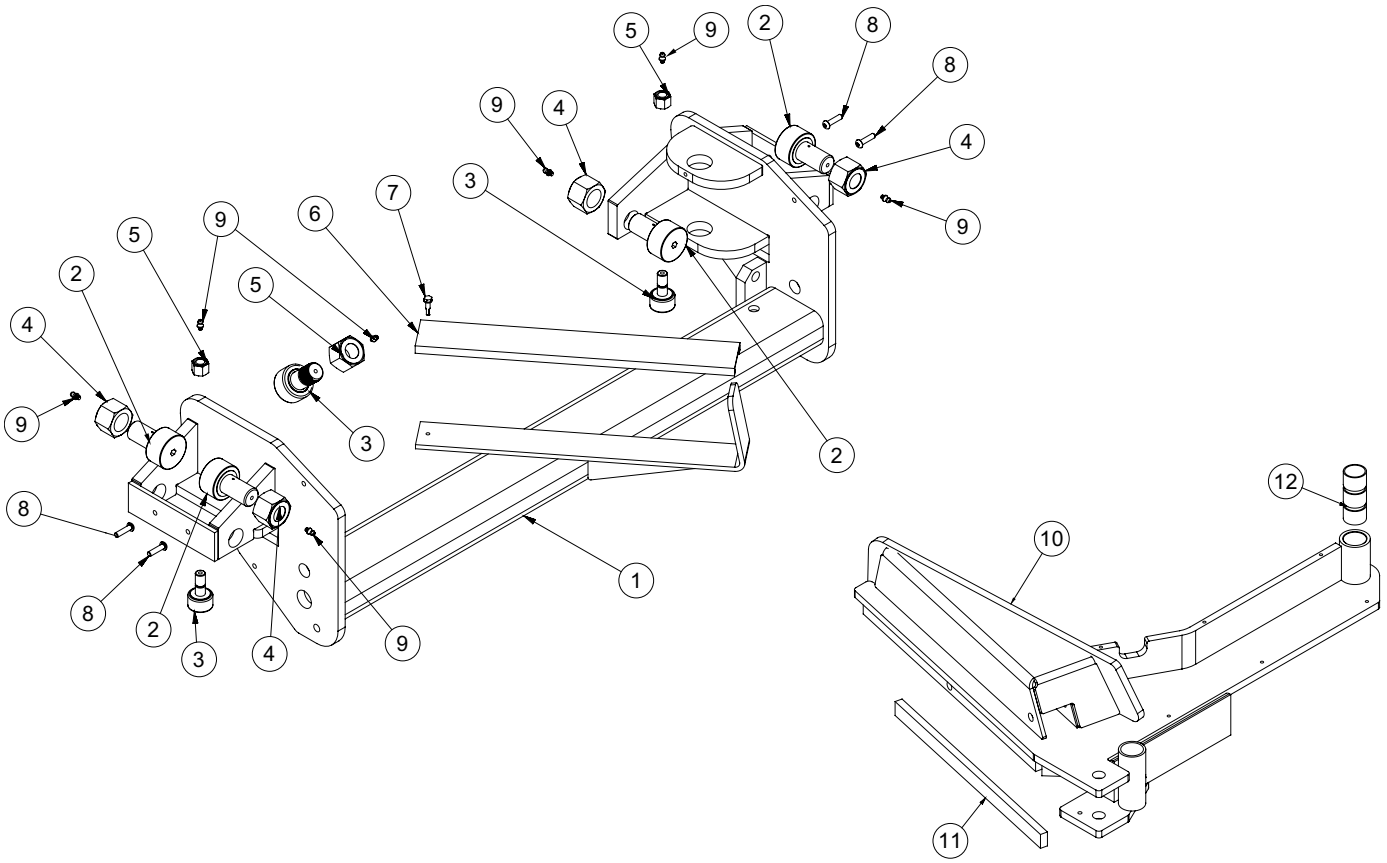
PARTS LIST — CARRIAGE ASSEMBLY AND CHOCK ARM

Fig. 24



Item	Qty.	Part Description	Part Number
1	1	WELDMENT, CARRIAGE ASSY — DRIVER SIDE WELDMENT, CARRIAGE ASSY — PASSENGER SIDE	6008999 6010967
2	5	1-7/8 CAM FOLLOWER BEARING	341001
3	2	1-1/4 CAM FOLLOWER BEARING	6004095
4	5	NYLON LOCK NUT - 1-14 UNS	214351
5	2	NYLON LOCK NUT - 1/2-20 UNF	6004096
6	1	WEAR STRIP, ARM	6009042
7	1	TEK SCREW 12-24 X 7/8	6000285
8	4	BUTTON HEAD HEX SOCKET CAP SCREW - 1/4-20 UNC X 1	6004099
9	7	GREASE FITTING, DRIVE FIT	417113
10	1	CHOCK ARM WELDMENT — DRIVER SIDE CHOCK ARM WELDMENT — PASSENGER SIDE	6009001 6010969
11	1	CHOCK ARM WEAR STRIP	153111
12	3	BUSHING 1-1/4X1	821032

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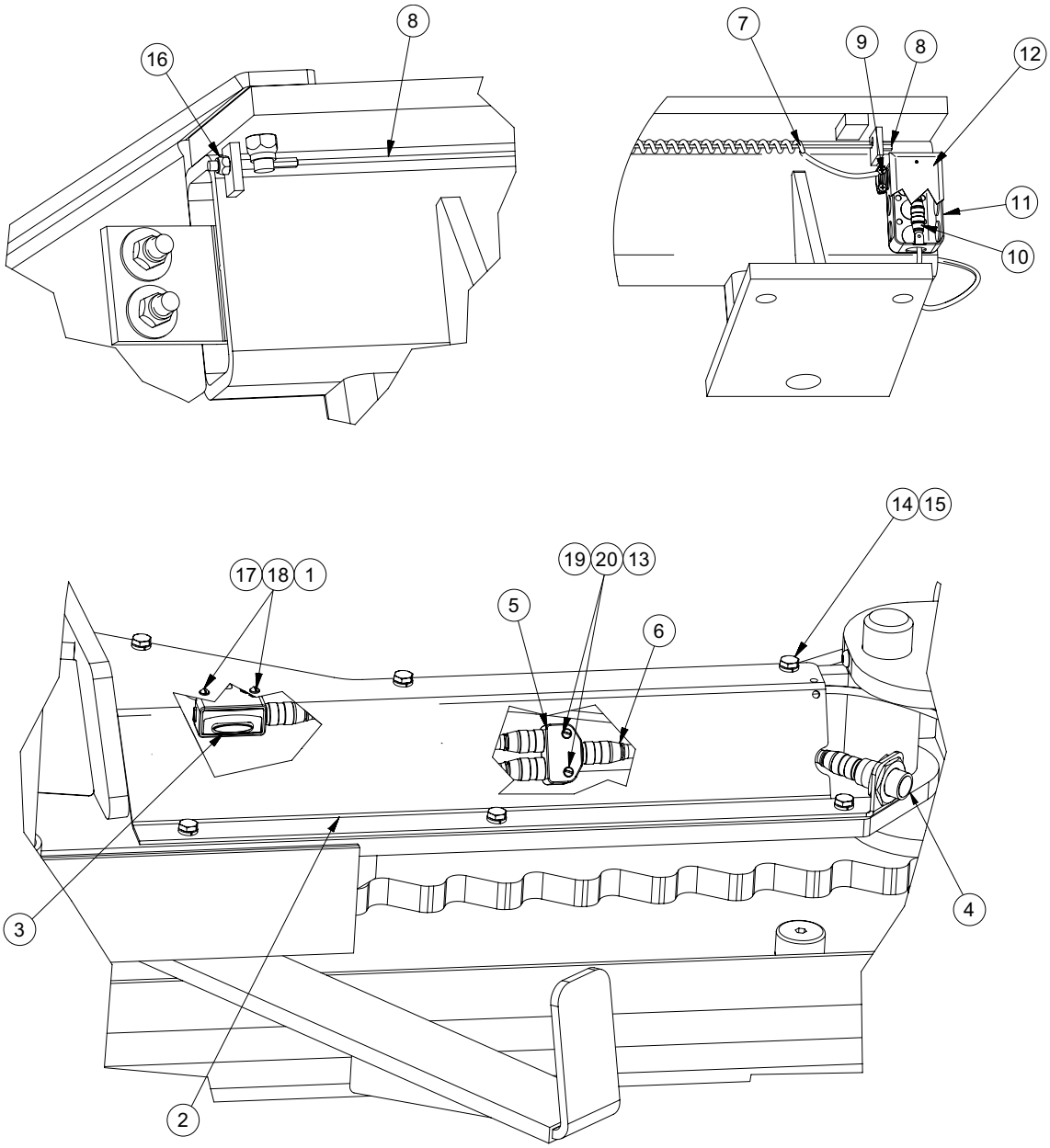
PARTS LIST — LIGHT COMMUNICATION SYSTEM

Fig. 25



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PARTS LIST — LIGHT COMMUNICATION SYSTEM, continued

Item	Qty.	Part Description	Part Number
1	2	PLAIN WASHER #4, 1/8ID X 3/8 OD	234052
2	1	COVER — DRIVER SIDE COVER — PASENGER SIDE	6009015 6010991
3	1	LS4 — PHOTO SENSOR, CHOCK ARM	6012917
4	1	LS1 — PROX SENSOR, 18 MM, PNP, NO	6008404
5	1	SPLITTER, QD	6009139
6	1	CABLE ASSY, 5 PIN, QUICK DISCONNECT, 2.0M	6008692
7	1	COIL CORD, QD, 10' MODELS COIL CORD, QD, 13' AND 16' MODELS	6009140 6011986
8	1	CABLE ASSY, CORD SUPPORT, 10' MODELS CABLE ASSY, CORD SUPPORT, 13' MODELS CABLE ASSY, CORD SUPPORT, 16' MODELS	6009016 6012060 6012061
9	1	CABLE CLAMP	521110
10	1	HOME RUN CABLE, QUICK DISCONNECT, 4 LEAD, 10M	6009141
11	1	CONDUIT BODY	6008982
12	1	CONDUIT COVER	6008987
13	2	NUT #8-32	6001878
14	6	HEX HEAD MACHINE BOLT 1/4-20 UNC X 5/8	212003
15	6	PLAIN WASHER 1/4 BOLT SIZE, 5/16 HOLE	234081
16	1	LOCK NUT 1/4-20 UNC, NYLON INSERT	214502
17	2	RHMS 4-40 UNC X 1	211063
18	2	LOCK NUT 4-40 UNC, NYLON INSERT	214060
19	2	BOLT #8-32 X 1-12	6001876
20	4	#8 WASHER	6001877

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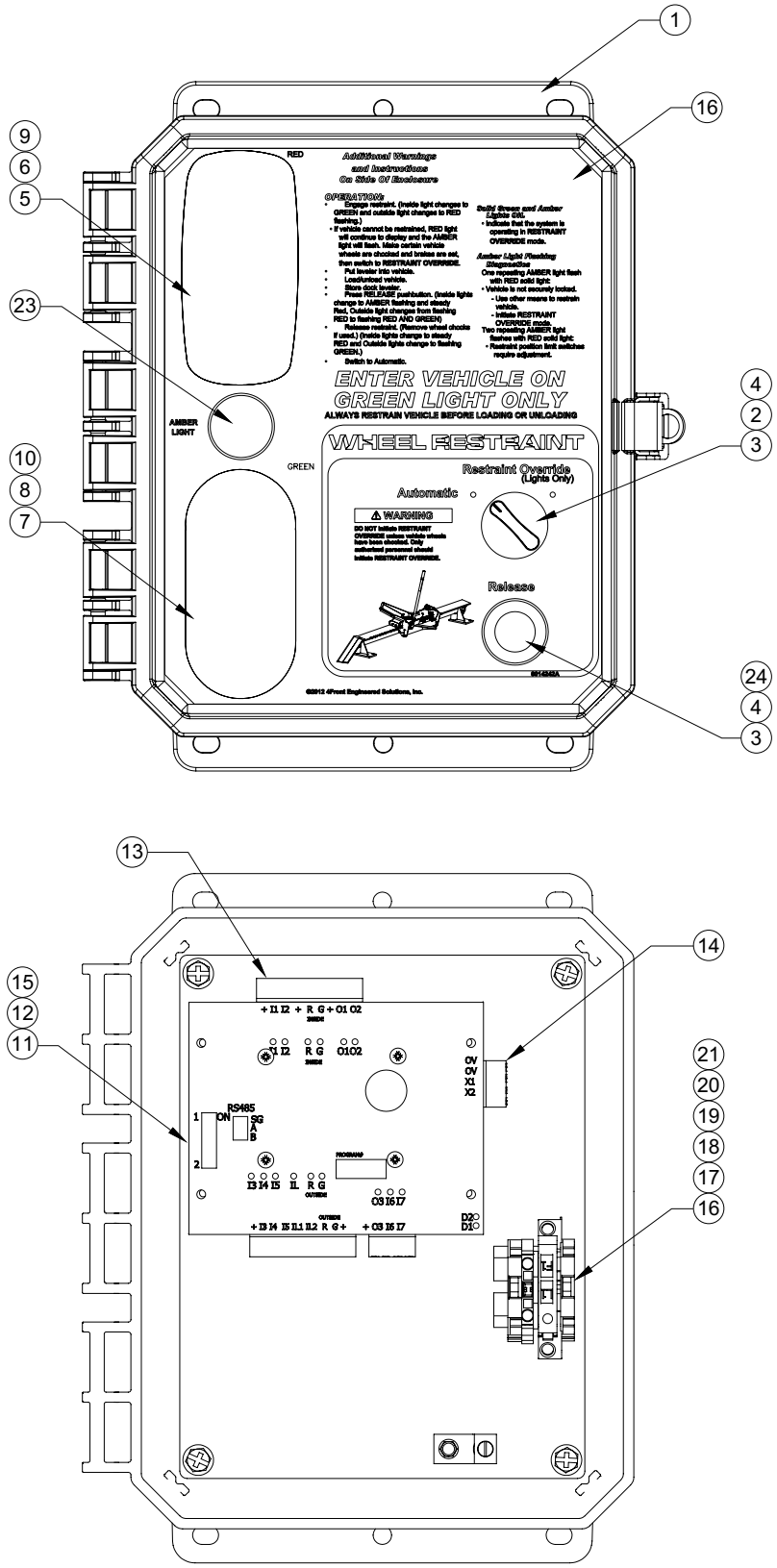
PARTS LIST — CONTROL PANEL

Fig. 26



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PARTS LIST — CONTROL PANEL, continued

Item	Quantity	Part Description	Part Number
1	1	CONTROL PANEL COMPLETE KELLEY CONTROL PANEL COMPLETE SERCO	6013951 6013997
2	1	SELECTOR SWITCH-2 POS. MAINT.	6012565
3	2	CONTACT BLOCK SWITCH N.O.	6012563
4	2	MOUNTING COLLAR	6012562
5	1	RED LENS	823100
6	1	LIGHT BASE RED	823107
7	1	GREEN LENS	AP0027
8	1	LIGHT BASE GREEN	823111
9	2	LRU, RED, CURRENT REGULATED	6006375
10	2	LRU, GREEN, CURRENT REGULATED	6006377
11	1	COVER PLATE - X CONTROLLER	6013870
12	1	X CONTROLLER PCB W/ MSLSC PROGRAM	6014054
13	2	TERMINAL BLOCK, 9 POS	6008824
14	2	TERMINAL BLOCK, 4 POS	6008822
15	1	TRANSFORMER,CONTROL 120/17 50VA	6008636
16	2	TERMINAL, END STOP, SCREWLESS	6000549
17	1	TERMINAL, 2 POLE	6000542
18	1	TERMINAL BLOCK, FUSED DISCONNECT	6000538
19	1	FUSE MDL .5 (NOT SHOWN)	6008836
20	1	TERMINAL END PLATE, 2MM	6006848
21	1	END AND INTERMEDIATE PLATE 2.5MM	6008853
22	1	CONTROL PANEL DECAL MSLSC SERCO CONTROL PANEL DECAL MSLSC KELLEY	6014242 6013969
23	1	AMBER LIGHT	6014259
24	1	YELLOW PUSH BUTTON	6013067

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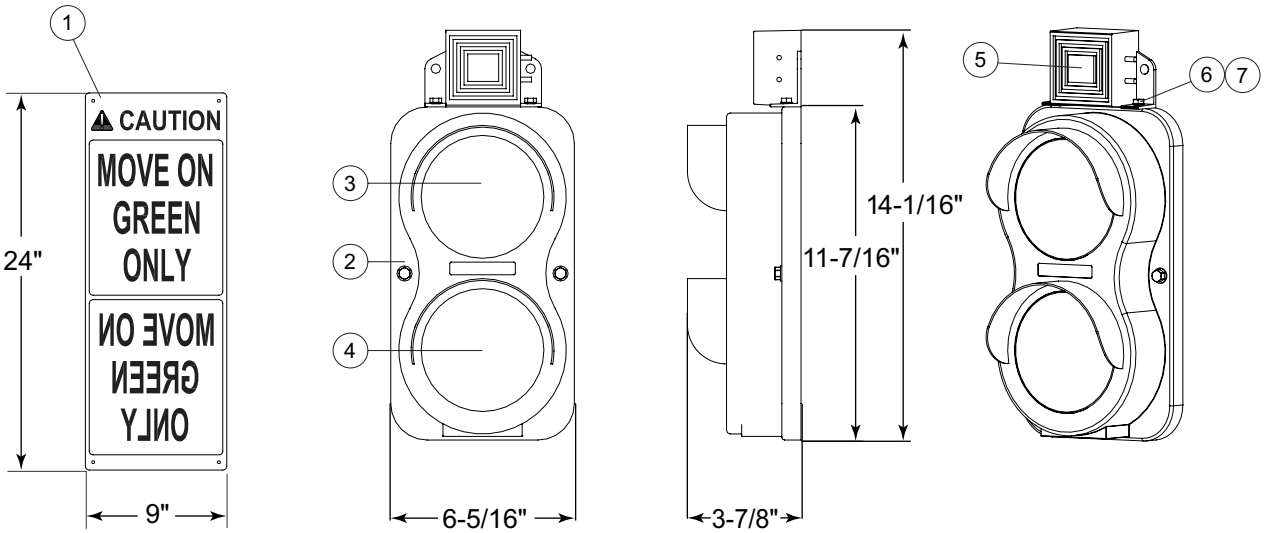
PARTS LIST — LIGHTS, SIGNS AND ALARM

Fig. 27



Item	Quantity	Part Description	Part Number
1	1	OUTSIDE SIGN – NORMAL AND REVERSE LETTERING	709832
2**	1	LIGHT ASSY - COMPLETE	6007798
3*	1	RED LED LIGHT ASSY.	6007800
4*	1	GREEN LED LIGHT ASSY.	6007801
5**	1	ALARM	061619
6**	2	HEX NUT 1/4-20	214161
7**	2	CARRIAGE BOLT 1/4-20 X 1 1/4"	213019
8	1	OUTSIDE LIGHT/ALARM ASSEMBLY	6009530

**** Included in item 2.***
***** Included in item 8.***

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LIMITED WARRANTY

THIS LIMITED WARRANTY IS 4FRONT'S SOLE AND EXCLUSIVE WARRANTY WITH RESPECT TO THE WHEEL RESTRAINT AND IS IN LIEU OF ANY OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED.

4Front warrants that this WHEEL RESTRAINT will be free from flaws in material and workmanship under normal use for a period of one (1) year from the earlier of 1) 60 days after the date of initial shipment by 4Front, or 2) the date of installation of the WHEEL RESTRAINT by the original purchaser, provided that the owner maintains and operates the WHEEL RESTRAINT in accordance with this User's Manual.

In the event that this WHEEL RESTRAINT proves deficient in material or workmanship within the applicable Limited Warranty period, owner shall so notify 4Front, and 4Front will, at its option:

1. Replace the WHEEL RESTRAINT, or the deficient portion(s) thereof, without charge to the owner (excluding any cost of removal or reinstallation which shall be the sole responsibility of the owner); or

2. Alter or repair the WHEEL RESTRAINT, on site or elsewhere, without charge to the owner.

This Limited Warranty does not cover any failure caused by improper installation, abuse, improper operation, negligence, or failure to maintain and adjust the WHEEL RESTRAINT properly. Parts requiring replacement due to damage resulting from vehicle impact, abuse, or improper operation are not covered by this warranty. 4FRONT DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR ANY LOSS OR DAMAGE OF ANY KIND (INCLUDING WITHOUT LIMITATION, DIRECT, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES, OR LOST PROFITS OR LOST PRODUCTION) arising out of or related to the use, installation or maintenance of the WHEEL RESTRAINT (including premature product wear, product failure, property damage or bodily injury resulting from use of unauthorized replacement parts or modification of the WHEEL RESTRAINT). 4Front's sole obligation with regard to a WHEEL RESTRAINT that is claimed to be deficient in material or workmanship shall be as set forth in this Limited Warranty. This Limited Warranty will be null and void if the original purchaser does not notify 4Front's warranty department within ninety (90) days after the product deficiency is discovered.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, INCLUDING, BUT NOT LIMITED TO, A WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH 4Front HEREBY DISCLAIMS.

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1612 Hutton Dr. Suite 140
Carrollton, TX. 75006
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